US006607165B1

(12) **United States Patent**
Manteiga et al.

(10) **Patent No.: US 6,607,165 B1**
(45) **Date of Patent: Aug. 19, 2003**

(54) **AIRCRAFT ENGINE MOUNT WITH SINGLE THRUST LINK**

(75) Inventors: **John Alan Manteiga**, North Andover, MA (US); **Christopher James Wilusz**, Peabody, MA (US); **Cornelius Harm Dykhuizen**, West Chester, OH (US)

(73) Assignee: **General Electric Company**, Schenectady, NY (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **10/185,922**

(22) Filed: **Jun. 28, 2002**

(51) **Int. Cl.**[7] **B54D 27/00**
(52) **U.S. Cl.** **244/54**; 60/39.31; 248/554
(58) **Field of Search** ..... 244/54, 53 R, 244/55; 60/39.31; 248/554, 555

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,266,741 A		5/1981	Murphy	244/54
4,603,821 A		8/1986	White	244/54
5,725,181 A	*	3/1998	Hey	244/54
5,746,391 A		5/1998	Rodgers et al.	244/54
5,860,623 A	*	1/1999	Dunstan et al.	244/54
5,873,547 A	*	2/1999	Dunstan	244/54
5,921,500 A	*	7/1999	Ellis et al.	244/54
6,330,985 B1	*	12/2001	Manteiga et al.	244/54
2002/0104924 A1	*	8/2002	Roszak	244/54

* cited by examiner

Primary Examiner—J. Woodrow Eldred
(74) *Attorney, Agent, or Firm*—Nathan D. Herkamp; Pierce Atwood

(57) **ABSTRACT**

A mount for mounting an aircraft engine to an aircraft includes a mounting frame having first and second flanges spaced apart a predetermined distance. Each of the first and second flanges has a bolt hole formed therein. A single thrust link is connected at one end to the mounting frame and at another end to the engine and serves as the primary axial loadpath for the engine. A lug formed on the engine casing is disposed between the first and second flanges and has a thickness that is less than the distance between the first and second flanges. The lug also has a bolt hole formed therein. A bolt extends through the bolt holes in the first and second flanges and the lug to connect the lug to the first and second flanges. The bolt hole in the lug is larger in diameter than the bolt to allow the lug to slide axially along the bolt. The first and second flanges, the lug and the bolt provide a waiting failsafe arrangement for reacting axial loads upon failure of the single thrust link.

21 Claims, 5 Drawing Sheets